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POST-GRADUATE INSTRUCTION

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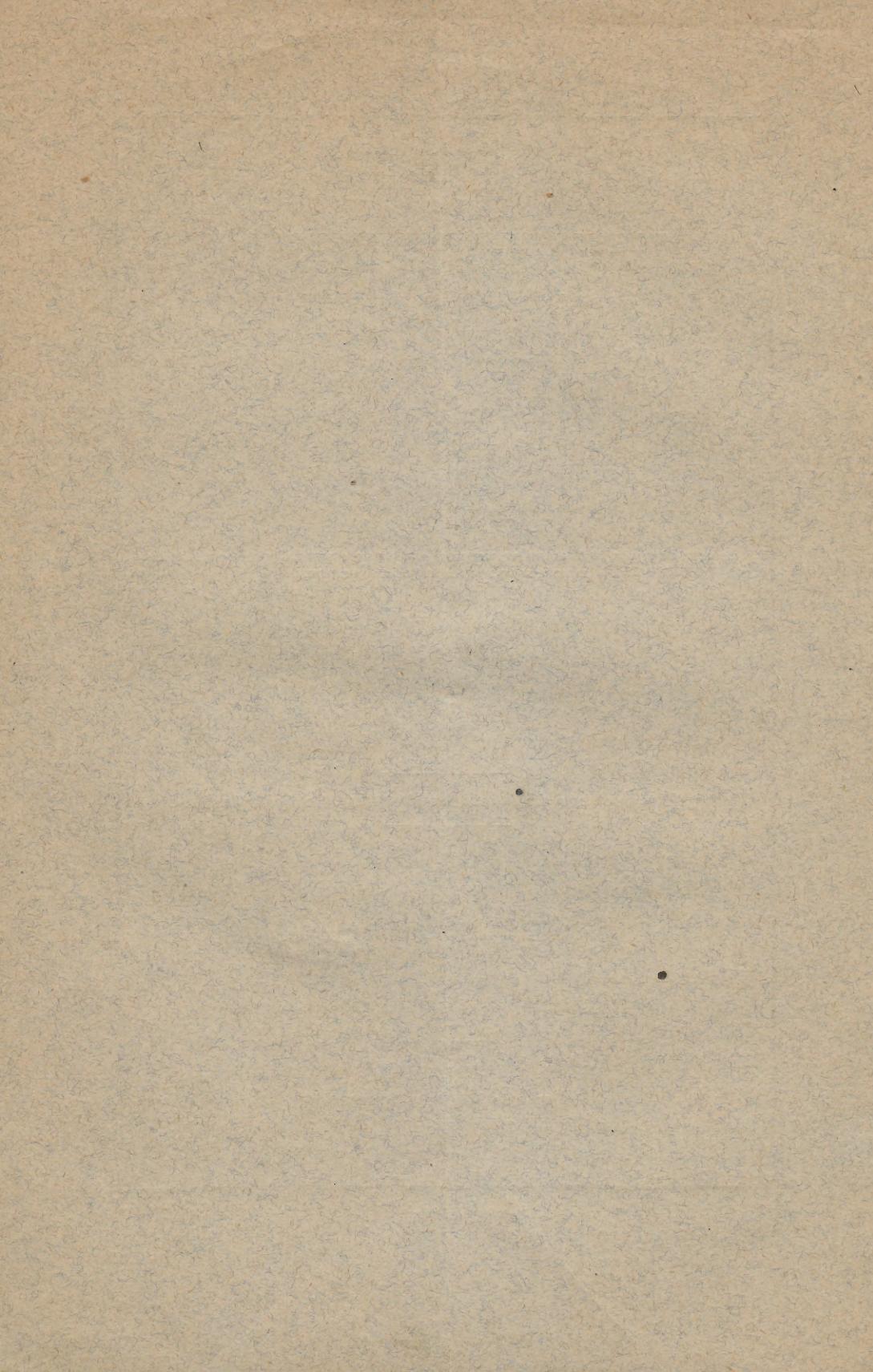


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A number of physicians of this city, mostly specialists, of conspicuous disparity in reputation as men of science or as teachers, have formed themselves into a faculty of medicine, and propose to organize a college for the purpose of teaching certain things, mostly matters which come within the limits of specialties, to graduates in medicine. So sanguine are these gentlemen of success, and so confident of the righteousness of their cause, that at least one of them has appended his new professional title to his name, on the title-page of a book—— before the college has been opened and before one lecture has been delivered.

There is something captivating in the term post-graduate instruction, or post-graduate course, and something imposing in post-graduate faculty ; and very naturally one interested in medical education is at once led to inquire whether there is any need of post-graduate instruction as such (apart from that never-ending effort at self-instruction which intelligent and conscientious physicians make through their lives), and whether the proposed new faculty is indispensable for the purpose, or whether an even better course of advanced teaching for the senior medical student could not be organized in the colleges already existing, and graduates invited to follow this part of the curriculum.

The first question, is there any need of post-graduate instruction ? can, I regret to say, be answered only in the affirmative. Taking the men who are yearly sent out of our medical colleges

with diplomas, we find that in spite of all they have acquired at the hands of their alma mater they are in need of more teaching, at least of more practical, educating teaching. A proof of this statement lies patent to all, in the fact that the very best men of these medical classes, those who have passed the most brilliant examinations and shown that they have crammed successfully, the very honor and prizemen of the schools, immediately compete for hospital appointments which will make them pupils again ; they will give themselves another and a better chance at self-improvement. This is a tacit acknowledgment of the incompleteness of their college education ; and if these well-crammed young men feel this way, and admit as much, what must be the condition of the rest of the hosts of graduates who, besides lacking practical education and training, are less well provided with memorized knowledge. They all need post-graduate instruction, and many of them will always need it and be glad to come for a few months to a large city to attempt to do what they ought to have done, or, more justly, ought to have been enabled and obliged by their alma mater to do before receiving a diploma. It is from this very numerous class of graduates of imperfect medical schools, who are men of all ages, of various degrees of practical success, but of one mind as to their need of better training, that the proposed post-graduate medical school is to be supplied with pupils or followers.

At the present time each medical college in our great cities bears upon its matriculation lists the names of many such seekers after scientific improvement,—men who need training and special teaching. They find themselves lost in a crowd of youths who are struggling to learn enough by rote, through books and lectures, to pass examinations of greater or lesser severity. The graduates find the lectures, as a rule, to be a mere rehash of what is in the books, made for the purposes of keeping up the time-honored plan of lecturing to large classes, and to give the student a sort of repetition of the various subjects. The impressions gathered through two senses, reading the matter by one's self and receiving it through the ear in an amphitheatre, are supposed to be more

firmly fixed, better registered, and more definitely associated in the brain, than they would be if derived only through reading. That there is a degree of psychological truth in this no one will deny, but the crying evil of routine didactic teaching cannot be sustained on such a plea. Besides hearing lectures which are repetitions of chapters of books which he knows well enough, and therefore useless to him, the graduate finds no lectures given by the only men about the schools who could teach him something new and vital, viz.: the specialists. They are, as a rule, not allowed to lecture in the regular course of lectures, and are placed in charge of clinics.

To these the graduate goes only to be disappointed and hindered in his work of self-improvement. He finds most clinics conducted without the least system, being merely an exhibition of cases as they happen to present themselves, with remarks by the professor. In many clinics, extraordinary cases of very little importance to the physician are made to play a great rôle, consuming time which should be devoted to the practical learning of methods of diagnosis and therapeutics, and to the systematic study of common diseases. Lastly, the graduate finds the front seats of lecture-rooms at the clinics crowded by junior students, who are there without appointed tasks, and who come to the clinics partly from curiosity to see disease, and partly because they have a dim notion that they must get all the "clinical experience" they can, even in their first years. The machinery of most of our schools is as yet so inadequate that there is no means of excluding the junior student from lectures and clinics which can do him no good, which use up time which should be devoted to a study of the fundamental branches, and where he occupies a seat which the undergraduate or graduate has a moral right to.

These difficulties dishearten the practitioner who has come to a medical centre, perhaps at much expense and inconvenience, to improve his scientific and practical knowledge.

But some say to him : Why do you not take advantage of the numerous private classes which are organized during the winter session, either for cramming purposes, or to teach special subjects

in a practical way? This our practitioner does, but he finds it quite expensive, and also has to encounter another difficulty, similar to that which he found in the schools: the classes are organized more for the teaching of undergraduates, by very elementary methods; he does learn something, but not as much as he hopes to, and not exactly what he needs. The proposed post-graduate school will say to the numerous graduates who return to New York for self-improvement: Come to us, gentlemen; we offer a curriculum prepared specially for you; you will not be elbowed by a crowd of raw students; we will give you every desired opportunity to study in a scientific and practical manner.

It remains to be seen whether the proposed new school of medicine will succeed, by such an appeal, in attracting a respectable number of pupils.

This brings us naturally to the consideration of the second proposition, whether a better course of advanced teaching than this new faculty offers, for senior students and for graduates, could not be organized in the already existing medical schools, as a part of their curriculum.

The qualifications of the members of the new-born faculty, and the discouraging circumstances they will have to contend against, are negative points in the discussion of this question, which we do not care, and do not need, to take up.

On the other hand, the advantages which the existing medical colleges have for undertaking higher teaching are very great.

Most of their professors, and nearly all of their assistants, are connected with hospital and dispensary services, and thus the colleges can command almost unlimited clinical opportunities. These means of teaching are now allowed to go to waste, chiefly because the faculties take no pains to bring these various services into a logical system. All the men connected with the school, and who have clinical services, teach as they please, several of them going over the same ground for the same unwieldy class of students. There is no attempt made to subordinate and correlate

the various clinics in the college, in hospitals, and at dispensaries, to the plan of teaching at the college, and to certain series of didactic lectures. Indeed, it seems to be nobody's business, and "go-as-you-please" appears to be the watchword among medical teachers. An enormous amount of clinical material is thus allowed to be ill-used or not used at all.

It seems to us that, taking advantage of the disinterested desire to teach others which the talented young alumni of a medical school always manifest, and of their interested, though laudable desire to acquire a nominal connection with their alma mater, much good clinical teaching might be secured without any great pecuniary outlay; only at the cost of careful planning of a scheme, and of energetic supervision of its execution.

With each chair upon a practical branch (each elementary scientific branch, chemistry, anatomy, physiology, and *materia media*, should have its laboratory with competent teachers), quite a number of younger men might be associated with some such title as clinical instructor or clinical professor, according to the professional standing of the incumbent. This title, desirable in itself, should convey with it to each appointee the various obligations to use his hospital or dispensary service mainly for the advantage of the school, to teach a number of months in each year to limited classes provided for him by the secretary of the faculty of his school; to regulate his teaching in all reasonable ways (matters of scientific opinion excepted), according to the suggestions of the professor of his branch at the school, who would thus, besides delivering lectures and giving clinical instruction himself, control and direct a large and highly efficient teaching force and a vast clinical material. By such means the senior student, or under-graduate, and the graduate in search of further teaching, could be registered and distributed in classes, to their great advantage. On the other hand, the school would have this reward, among others, that between these numerous junior teachers the liveliest rivalry would arise as to excellence in teaching and faithfulness in serving the school, and thus there would grow up a strong competing class of candidates for any vacant professorship.

It may be said that these clinical teachers would demand emoluments. We doubt it, partly because it is in the nature of young men (young physicians perhaps more especially) to labor for the sake of an honorable title, of a possible promotion to an assured position, and I place it last, but not least, disinterestedly for science's sake.

This relates to teaching of the practical branches at the bedside, without the school principally.

Now, what need the schools do to improve higher teaching within the college walls, and to offer a post-graduate curriculum better than that planned by the proposed school?

The thorough discussion of such a question would involve a consideration of the means of improving teaching for all grades of students; a much too complicated theme. We must content ourselves with suggesting some simple changes in the present arrangement which would, in our opinion, fairly meet the wants of students about to graduate and of graduates seeking higher instruction.

In the first place it would be necessary to break through the present rule in most medical colleges, that only one lecture or clinic shall be offered to the class at one time. It is difficult to find polite terms in which to condemn this time-honored (American) custom, so contrary does it seem to common-sense and to economy in the administration of a school. Here is a college building costing from forty to sixty thousand dollars, with a full staff of professors and assistants, with a class of three or four hundred students, and forsooth the whole of this machinery must result in but one form of teaching at any one time, for a few hours a day. This is comparable to an attempt to irrigate a field from an ample reservoir, but the water must be made to flow through one little aperture; the area of the field and its need of water on the one hand, and the abundant supply of water on the other hand, are made subject to a meagreness of distribution which is justified only by a senile custom. No doubt this practice had its rise in connection with the now antiquated notion that medicine was to be taught didactically, and the whole class obliged to hear

the various lectures systematically. And, in the same way, the class was supposed to attend every clinic. By all this, wholesale superficial education was reduced to a system and made easy. The truth is that from three to six lectures, clinics, or private classes might be going on at the same time, during the same hour, if the building were appropriate, and if an official had the responsible duty of classifying students and distributing them in classes.

As regards buildings : Our medical schools (in New York) have, as a rule, only two huge lecture-rooms or amphitheatres, and one dissecting-room. Even with this insufficient number of rooms, the present amount of teaching might be doubled. But in some schools more room might be had by devoting to a useful purpose rooms which are occupied by professors for a few minutes each day, merely as a convenience. Out of several professor's rooms one or more small lecture-rooms might be arranged at small expense. Besides, some of the schools could well afford to hire or purchase a private house near the school, alter it somewhat, and thus obtain two or three small lecture-rooms, and two or three laboratories.

As regards the arrangement of studies and classes : A thorough system of graded study by divided classes may be desirable, but we are hardly ready for this. No one, however, can claim that the time has not arrived for a strict division of our large classes into junior and senior classes, and to these might be added a graduate class. These groupings should be formally made by registration in the books of the official in charge of the college work, and by means of tickets and door-keepers the separation should be practically enforced.

By such means the junior students would be obliged to give all their time to the lectures and demonstrations upon anatomy, physiology, chemistry, and *materia medica*. They would also find time for special practical laboratory work in all of these branches, in the smaller teaching rooms of the school ; and some of the more capable members of this class would find time to study also German or French, and perhaps medical physics and botany, branches which are almost necessary to a *complete* medical education.

As matters stand now, except in the case of the well-advised and seriously-minded few, junior students wander into clinics and hospitals, anxious to behold the horrors of disease, to experience the new sensations produced by the sight of a bloody operation, and, truth compels me to add, sometimes to gratify a lewd fancy by witnessing exposures of the human form. These young men have nothing to gain by going to clinics and visiting hospitals ; they waste their time, of which they have only too little to do justice to the noble sciences they need to study ; they take up room which the senior student or graduate should have. We are sure that many clinics are thus made to appear crowded and astonishingly successful; yet we hope and believe that the professors of such clinics would much rather teach a selected smaller class, free from the throng of curiosity and sensation seekers. The faculty of a medical school owes it to these misguided junior students, owes it to the seriously studious senior student, and more particularly to the earnest graduate who comes to the school seeking after higher instruction, to police the class, and by all the means in its power to restrict the junior class to its legitimate studies, and to keep it out of the rooms or hospitals where the practical branches are taught.

The senior or undergraduate class, studying more particularly pathology, practical medicine, surgery, obstetrics and gynecology, and therapeutics (that ill-taught though crowning science), might continue to hear didactic lectures, since it is premature to ask the partial or complete omissions of these ; but the extensive clinical scheme proposed in the first part of this paper, should be employed as the chief means of education. The class could be subdivided into sections, and distributed in such a way as to allow each student an opportunity of practically studying disease in its various forms, of acquiring the arts of diagnosis and of treatment. It would be more especially for this purpose that the utility of numerous rooms for teaching would appear. Why, for example, should not, from 10 to 11 A.M., the junior class listen to a lecture, a demonstrative lecture let us hope, upon anatomy in one amphitheatre, while the senior class is hearing a lecture upon a surgical

topic, and a selected section or two are doing laboratory work of some sort? Why in the afternoon should not sections of the senior class be at two or three hospitals attending bedside teaching or operations, and other sections busy in the same way in the college itself, or doing laboratory work?

The post-graduate class might well find opportunities for higher study in these small, well-officered clinics. This teaching, while not particularly scientific, would be practical, and would be better than any thing offered them in their student days. But much more might be done to meet the wants of the graduate class without interrupting the regular work of the school, with very little, if any, expense to the faculties, and we believe it might be done much better in the existing schools by their own teachers, than outside in a new special post-graduate school by a fortuitously conglomerated faculty.

The graduate in search of more instruction wants above all to get the opinions and newest practical ideas of specialists—of specialists in *study* if not close specialists in *practice*. He also wants (perhaps *needs* it more than he *wishes* it) instruction in methods: the education of his eyes, ears, and hands to *do*, to *execute* the things of science. He needs to be taught to manipulate all instruments, and to examine the human body thoroughly. He needs to learn practical therapeutics, including the use of electricity, hydrotherapy, massage, which are arts in themselves.

The rooms which should be added to all our present medical schools could be utilized for the teaching of these practical specialties. Lectures, clinical or demonstrative ones we mean, upon these subjects might be going on at the very same time that the regular school lectures were being delivered and clinics held. Each school has affiliated with it a sufficient number of younger specialists, or quasi-specialists, who would gladly, with a nominal honorarium or even without any, give the instruction in such a post-graduate course. Every specialty could be represented by one professor and by several clinics in hospitals or dispensaries, and members of the graduate class assigned to these, in accordance with their needs and wishes, by the secretary or registrar of

the school. The classes which would attend such very special lectures, lectures embodying the freshest and most applicable science of the day, might be small, but their members would be seriously studious or even enthusiastic.

A post-graduate faculty organized in this way, from the younger men growing up around our medical schools, would do much to increase the reputation of their alma mater as a centre of learning, and would probably be stimulated to do much for medical science by more original research than we have at present in America. Though perhaps lecturing at the same hour with the professors of the principal branches in the students' department, there would be no rivalry or interference, if the students were classified and kept classified as above suggested.

An objection to this plan of subdividing the classes, and having several lectures, clinics, or demonstrations going on at once, is that some members of the senior class need to go over part of the elementary branches before presenting themselves for their final examinations ; they should have an opportunity of attending the lectures upon these subjects, and in the scheme proposed they could not do this without missing some clinic or lecture upon a practical branch. The fallacy of this objection is obvious ; it is made by one who believes in the superior power of didactic lectures to instruct. The prestige of didactic lectures has been already much dimmed, and we may live to see them almost banished from schools. The objection is invalid, because an intelligent member of the senior class can review his anatomy, physiology, etc., from text-books (having already studied these branches thoroughly and practically for a year or two).

Another objection, more serious, is that a well-managed division of the class and the exercise of effectual control over the course of study followed by its members would throw a considerable additional labor and responsibility upon the faculty. True, but this would hold good of any serious scheme for improving medical education. A part of the complicated badness of our present way of teaching students, has been the irresponsible ease with which a few men have done the business. A few faculty meetings

in the year, an hour's lecture three or four times a week, with one or two clinics each week (not prepared beforehand—mere off-hand conversations about cases), and a rather busy week at the time of the annual examinations,—these have constituted the labors of a professor in a medical school. One might say that it would not be very terrible to make an addition to these duties in the interest of the class, and of medical science, but the scheme does not call for this. It would, however, demand that the gentlemen composing our medical faculties, with a deeper sense of the great responsibility they assume in attempting to educate three or four hundred young men, should carefully select one of themselves, or an outsider, a younger and less busy man than any of them, to co-ordinate the scheme of instruction. To do it well would tax the whole energy and time of a man having special executive ability. He might be termed secretary or registrar, and his duties would embrace keeping classified lists of the students, divided into junior and senior classes, and subdivided into sections for assignment to the various teachers connected with the school. He would have to see the students and teachers frequently, and secure such a rotation of these various sections as to give every student a full opportunity to study all branches of medicine. The numerous clinics affiliated with the school, held in hospitals and dispensaries throughout the city, should be, not under his control in any scientific sense, but guided and co-ordinated by him, in reference to their order of working. He could also keep a record of the various examinations passed by students of the three classes, junior, undergraduate, and graduate.

Finally, graduates submitting to such a scheme of study, devoting several months to study under such favorable circumstances, would naturally expect a certificate of their attendance and attainments. The members of the special faculty might be empowered to examine gentlemen desiring such certificates, and they could be issued by the medical school or by the university with which it might be affiliated.

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